

107TH CONGRESS  
1ST SESSION

# S. 1870

To amend the Clean Air Act to establish an inventory, registry, and information system of United States greenhouse gas emissions to inform the public and private sector concerning, and encourage voluntary reductions in, greenhouse gas emissions.

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## IN THE SENATE OF THE UNITED STATES

DECEMBER 20 (legislative day, DECEMBER 18), 2001

Mr. CORZINE (for himself, Mr. JEFFORDS, and Mr. LIEBERMAN) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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## A BILL

To amend the Clean Air Act to establish an inventory, registry, and information system of United States greenhouse gas emissions to inform the public and private sector concerning, and encourage voluntary reductions in, greenhouse gas emissions.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “National Greenhouse  
5       Gas Emissions Inventory and Registry Act of 2001”.

6       **SEC. 2. FINDINGS AND PURPOSE.**

7       (a) FINDINGS.—Congress finds that—

1           (1) human activities have caused rapid in-  
2       creases in atmospheric concentrations of carbon di-  
3       oxide and other greenhouse gases in the last century;

4           (2) according to the Intergovernmental Panel  
5       on Climate Change and the National Research  
6       Council—

7           (A) the Earth has warmed in the last cen-  
8       tury; and

9           (B) the majority of the observed warming  
10      is attributable to human activities;

11          (3) despite the fact that many uncertainties in  
12      climate science remain, the potential impacts from  
13      human-induced climate change pose a substantial  
14      risk that should be managed in a responsible man-  
15      ner; and

16          (4) to begin to manage climate change risks,  
17      public and private entities will need a comprehen-  
18      sive, accurate inventory, registry, and information  
19      system of the sources and quantities of United  
20      States greenhouse gas emissions.

21      (b) PURPOSE.—The purpose of this Act is to estab-  
22      lish a mandatory greenhouse gas inventory, registry, and  
23      information system that—

24          (1) is complete, consistent, transparent, and ac-  
25      curate;

1           (2) will create accurate data that can be used  
 2           by public and private entities to design efficient and  
 3           effective greenhouse gas emission reduction strate-  
 4           gies; and

5           (3) will encourage greenhouse gas emission re-  
 6           ductions.

7   **SEC. 3. GREENHOUSE GAS EMISSIONS.**

8           The Clean Air Act (42 U.S.C. 1701 et seq.) is amend-  
 9   ed by adding at the end the following:

10   **“TITLE VII—GREENHOUSE GAS**  
 11                           **EMISSIONS**

12   **“SEC. 701. DEFINITIONS.**

13           “In this title:

14           “(1) COVERED ENTITY.—The term ‘covered en-  
 15           tity’ means an entity that emits more than a thresh-  
 16           old quantity of greenhouse gas emissions.

17           “(2) DIRECT EMISSIONS.—The term ‘direct  
 18           emissions’ means greenhouse gas emissions from a  
 19           source that is owned or controlled by an entity.

20           “(3) ENTITY.—The term ‘entity’ includes a  
 21           firm, a corporation, an association, a partnership,  
 22           and a Federal agency.

23           “(4) GREENHOUSE GAS.—The term ‘greenhouse  
 24           gas’ means—

25                   “(A) carbon dioxide;

- 1 “(B) methane;
- 2 “(C) nitrous oxide;
- 3 “(D) hydrofluorocarbons;
- 4 “(E) perfluorocarbons; and
- 5 “(F) sulfur hexafluoride.

6 “(5) GREENHOUSE GAS EMISSIONS.—The term  
7 ‘greenhouse gas emissions’ means emissions of a  
8 greenhouse gas, including—

9 “(A) stationary combustion source emis-  
10 sions, which are emitted as a result of combus-  
11 tion of fuels in stationary equipment such as  
12 boilers, furnaces, burners, turbines, heaters, in-  
13 cinerators, engines, flares, and other similar  
14 sources;

15 “(B) process emissions, which consist of  
16 emissions from chemical or physical processes  
17 other than combustion;

18 “(C) fugitive emissions, which consist of  
19 intentional and unintentional emissions from—

20 “(i) equipment leaks such as joints,  
21 seals, packing, and gaskets; and

22 “(ii) piles, pits, cooling towers, and  
23 other similar sources; and

24 “(D) mobile source emissions, which are  
25 emitted as a result of combustion of fuels in

1           transportation equipment such as automobiles,  
2           trucks, trains, airplanes, and vessels.

3           “(6) GREENHOUSE GAS EMISSIONS RECORD.—

4           The term ‘greenhouse gas emissions record’ means  
5           all of the historical greenhouse gas emissions and  
6           project reduction data submitted by an entity under  
7           this title, including any adjustments to such data  
8           under section 704(c).

9           “(7) GREENHOUSE GAS REPORT.—The term  
10          ‘greenhouse gas report’ means an annual list of the  
11          greenhouse gas emissions of an entity and the  
12          sources of those emissions.

13          “(8) INDIRECT EMISSIONS.—The term ‘indirect  
14          emissions’ means greenhouse gas emissions that are  
15          a consequence of the activities of an entity but that  
16          are emitted from sources owned or controlled by an-  
17          other entity.

18          “(9) NATIONAL GREENHOUSE GAS EMISSIONS  
19          INFORMATION SYSTEM.—The term ‘national green-  
20          house gas emissions information system’ means the  
21          information system established under section 702(a).

22          “(10) NATIONAL GREENHOUSE GAS EMISSIONS  
23          INVENTORY.—The term ‘national greenhouse gas  
24          emissions inventory’ means the national inventory of

1 greenhouse gas emissions established under section  
2 705.

3 “(11) NATIONAL GREENHOUSE GAS REG-  
4 ISTRY.—The term ‘national greenhouse gas registry’  
5 means the national greenhouse gas registry estab-  
6 lished under section 703(a).

7 “(12) PROJECT REDUCTION.—The term  
8 ‘project reduction’ means—

9 “(A) a greenhouse gas emission reduction  
10 achieved by carrying out a greenhouse gas  
11 emission reduction project; and

12 “(B) sequestration achieved by carrying  
13 out a sequestration project.

14 “(13) REPORTING ENTITY.—The term ‘report-  
15 ing entity’ means an entity that reports to the Ad-  
16 ministrator under subsection (a) or (b) of section  
17 704.

18 “(14) SEQUESTRATION.—The term ‘sequestra-  
19 tion’ means the long-term separation, isolation, or  
20 removal of greenhouse gases from the atmosphere,  
21 including through a biological or geologic method  
22 such as reforestation or an underground reservoir.

23 “(15) THRESHOLD QUANTITY.—The term  
24 ‘threshold quantity’ means a threshold quantity for

1        mandatory greenhouse gas reporting established by  
 2        the Administrator under section 704(a)(3).

3            “(16) VERIFICATION.—The term ‘verification’  
 4        means the objective and independent assessment of  
 5        whether a greenhouse gas report submitted by a re-  
 6        porting entity accurately reflects the greenhouse gas  
 7        impact of the reporting entity.

8        **“SEC. 702. NATIONAL GREENHOUSE GAS EMISSIONS INFOR-**  
 9            **MATION SYSTEM.**

10        “(a) ESTABLISHMENT.—In consultation with the  
 11        Secretary of Commerce, the Secretary of Agriculture, the  
 12        Secretary of Energy, States, the private sector, and non-  
 13        governmental organizations concerned with establishing  
 14        standards for reporting of greenhouse gas emissions, the  
 15        Administrator shall establish and administer a national  
 16        greenhouse gas emissions information system to collect in-  
 17        formation reported under section 704(a).

18        “(b) SUBMISSION TO CONGRESS OF DRAFT DE-  
 19        SIGN.—Not later than 180 days after the date of enact-  
 20        ment of this title, the Administrator shall submit to Con-  
 21        gress a draft design of the national greenhouse gas emis-  
 22        sions information system.

23        “(c) AVAILABILITY OF DATA TO THE PUBLIC.—The  
 24        Administrator shall publish all information in the national  
 25        greenhouse gas emissions information system through the

1 website of the Environmental Protection Agency, except  
 2 in any case in which publishing the information would re-  
 3 veal a trade secret or disclose information vital to national  
 4 security.

5 “(d) RELATIONSHIP TO OTHER GREENHOUSE GAS  
 6 REGISTRIES.—To the extent practicable, the Adminis-  
 7 trator shall ensure coordination between the national  
 8 greenhouse gas emissions information system and existing  
 9 and developing Federal, regional, and State greenhouse  
 10 gas registries.

11 “(e) INTEGRATION WITH OTHER ENVIRONMENTAL  
 12 INFORMATION.—To the extent practicable, the Adminis-  
 13 trator shall integrate information in the national green-  
 14 house gas emissions information system with other envi-  
 15 ronmental information managed by the Administrator.

16 **“SEC. 703. NATIONAL GREENHOUSE GAS REGISTRY.**

17 “(a) ESTABLISHMENT.—In consultation with the  
 18 Secretary of Commerce, the Secretary of Agriculture, the  
 19 Secretary of Energy, States, the private sector, and non-  
 20 governmental organizations concerned with establishing  
 21 standards for reporting of greenhouse gas emissions, the  
 22 Administrator shall establish and administer a national  
 23 greenhouse gas registry to collect information reported  
 24 under section 704(b).



1       “(b) AVAILABILITY OF DATA TO THE PUBLIC.—The  
 2 Administrator shall publish all information in the national  
 3 greenhouse gas registry through the website of the Envi-  
 4 ronmental Protection Agency, except in any case in which  
 5 publishing the information would reveal a trade secret or  
 6 disclose information vital to national security.

7       “(c) RELATIONSHIP TO OTHER GREENHOUSE GAS  
 8 REGISTRIES.—To the maximum extent feasible and prac-  
 9 ticable, the Administrator shall ensure coordination be-  
 10 tween the national greenhouse gas registry and existing  
 11 and developing Federal, regional, and State greenhouse  
 12 gas registries.

13       “(d) INTEGRATION WITH OTHER ENVIRONMENTAL  
 14 INFORMATION.—To the maximum extent practicable, the  
 15 Administrator shall integrate all information in the na-  
 16 tional greenhouse gas registry with other environmental  
 17 information collected by the Administrator.

18       **“SEC. 704. REPORTING.**

19       “(a) MANDATORY REPORTING TO NATIONAL GREEN-  
 20 HOUSE GAS EMISSIONS INFORMATION SYSTEM.—

21               “(1) INITIAL REPORTING REQUIREMENTS.—

22                       “(A) IN GENERAL.—Not later than April  
 23 30, 2003, in accordance with this paragraph  
 24 and the regulations promulgated under section  
 25 706(e)(1), each covered entity shall submit to

1 the Administrator, for inclusion in the national  
2 greenhouse gas emissions information system,  
3 the greenhouse gas report of the covered entity  
4 with respect to—

5 “(i) calendar year 2002; and

6 “(ii) each greenhouse gas emitted by  
7 the covered entity in an amount that ex-  
8 ceeds the applicable threshold quantity.

9 “(B) REQUIRED ELEMENTS.—Each green-  
10 house gas report submitted under subparagraph  
11 (A)—

12 “(i) shall include estimates of direct  
13 stationary combustion source emissions;

14 “(ii) shall express greenhouse gas  
15 emissions in metric tons of the carbon di-  
16 oxide equivalent of each greenhouse gas  
17 emitted;

18 “(iii) shall specify the sources of  
19 greenhouse gas emissions that are included  
20 in the greenhouse gas report;

21 “(iv) shall be reported on an entity-  
22 wide basis and on a facility-wide basis; and

23 “(v) to the maximum extent prac-  
24 ticable, shall be reported electronically to

1 the Administrator in such form as the Ad-  
2 ministrator may require.

3 “(C) METHOD OF REPORTING OF ENTITY-  
4 WIDE EMISSIONS.—Under subparagraph  
5 (B)(iv), entity-wide emissions shall be reported  
6 on the bases of financial control and equity  
7 share in a manner consistent with the financial  
8 reporting practices of the covered entity.

9 “(2) FINAL REPORTING REQUIREMENTS.—

10 “(A) IN GENERAL.—Not later than April  
11 30, 2004, and each April 30 thereafter (except  
12 as provided in subparagraph (B)(vii)), in ac-  
13 cordance with this paragraph and the regula-  
14 tions promulgated under section 706(e)(2), each  
15 covered entity shall submit to the Administrator  
16 the greenhouse gas report of the covered entity  
17 with respect to—

18 “(i) the preceding calendar year; and

19 “(ii) each greenhouse gas emitted by  
20 the covered entity in an amount that ex-  
21 ceeds the applicable threshold quantity.

22 “(B) REQUIRED ELEMENTS.—Each green-  
23 house gas report submitted under subparagraph  
24 (A) shall include—

1 “(i) the required elements specified in  
2 paragraph (1);

3 “(ii) estimates of indirect emissions  
4 from imported electricity, heat, and steam;

5 “(iii) estimates of process emissions  
6 described in section 701(5)(B);

7 “(iv) estimates of fugitive emissions  
8 described in section 701(5)(C);

9 “(v) estimates of mobile source emis-  
10 sions described in section 701(5)(D), in  
11 such form as the Administrator may re-  
12 quire;

13 “(vi) in the case of a covered entity  
14 that is a forest product entity, estimates of  
15 direct stationary source emissions, includ-  
16 ing emissions resulting from combustion of  
17 biomass;

18 “(vii) in the case of a covered entity  
19 that owns more than 250,000 acres of  
20 timberland, estimates, by State, of the tim-  
21 ber and carbon stocks of the covered enti-  
22 ty, which estimates shall be updated every  
23 5 years; and

24 “(viii) a description of any adjust-  
25 ments to the greenhouse gas emissions

1                   record of the covered entity under sub-  
2                   section (c).

3                   “(3) ESTABLISHMENT OF THRESHOLD QUAN-  
4                   TITIES.—For the purpose of reporting under this  
5                   subsection, the Administrator shall establish thresh-  
6                   old quantities of emissions for each combination of  
7                   a source and a greenhouse gas that is subject to the  
8                   mandatory reporting requirements under this sub-  
9                   section.

10                  “(b) VOLUNTARY REPORTING TO NATIONAL GREEN-  
11                  HOUSE GAS REGISTRY.—

12                   “(1) IN GENERAL.—Not later than April 30,  
13                   2004, and each April 30 thereafter, in accordance  
14                   with this subsection and the regulations promulgated  
15                   under section 706(f), an entity may voluntarily re-  
16                   port to the Administrator, for inclusion in the na-  
17                   tional greenhouse gas registry, with respect to the  
18                   preceding calendar year and any greenhouse gas  
19                   emitted by the entity—

20                   “(A) project reductions;

21                   “(B) transfers of project reductions to and  
22                   from any other entity;

23                   “(C) project reductions and transfers of  
24                   project reductions outside the United States;

1           “(D) indirect emissions that are not re-  
 2           quired to be reported under subsection  
 3           (a)(2)(B)(ii) (such as product transport, waste  
 4           disposal, product substitution, travel, and em-  
 5           ployee commuting); and

6           “(E) product use phase emissions.

7           “(2) TYPES OF ACTIVITIES.—Under paragraph  
 8           (1), an entity may report activities that reduce  
 9           greenhouse gas emissions or sequester a greenhouse  
 10          gas, including—

11           “(A) fuel switching;

12           “(B) energy efficiency improvements;

13           “(C) use of renewable energy;

14           “(D) use of combined heat and power sys-  
 15          tems;

16           “(E) management of cropland, grassland,  
 17          and grazing land;

18           “(F) forestry activities that increase car-  
 19          bon stocks;

20           “(G) carbon capture and storage;

21           “(H) methane recovery; and

22           “(I) carbon offset investments.

23          “(c) ADJUSTMENT FACTORS.—

1           “(1) IN GENERAL.—Each reporting entity shall  
2       adjust the greenhouse gas emissions record of the  
3       reporting entity in accordance with this subsection.

4           “(2) SIGNIFICANT STRUCTURAL CHANGES.—

5               “(A) IN GENERAL.—A reporting entity  
6       that experiences a significant structural change  
7       in the organization of the reporting entity (such  
8       as a merger, major acquisition, or divestiture)  
9       shall adjust its greenhouse gas emissions record  
10      for preceding years so as to maintain year-to-  
11      year comparability.

12           “(B) MID-YEAR CHANGES.—In the case of  
13      a reporting entity that experiences a significant  
14      structural change described in subparagraph  
15      (A) during the middle of a year, the greenhouse  
16      gas emissions record of the reporting entity for  
17      preceding years shall be adjusted on a pro-rata  
18      basis.

19           “(3) CALCULATION CHANGES AND ERRORS.—  
20      The greenhouse gas emissions record of a reporting  
21      entity for preceding years shall be adjusted for—

22               “(A) changes in calculation methodologies;  
23              or

1           “(B) errors that significantly affect the  
2           quantity of greenhouse gases in the greenhouse  
3           gas emissions record.

4           “(4) ORGANIZATIONAL GROWTH OR DECLINE.—  
5           The greenhouse gas emissions record of a reporting  
6           entity for preceding years shall not be adjusted for  
7           any organizational growth or decline of the reporting  
8           entity such as—

9                   “(A) an increase or decrease in production  
10                  output;

11                   “(B) a change in product mix;

12                   “(C) a plant closure; and

13                   “(D) the opening of a new plant.

14           “(5) EXPLANATIONS OF ADJUSTMENTS.—A re-  
15           porting entity shall explain, in a statement included  
16           in the greenhouse gas report of the reporting entity  
17           for a year—

18                   “(A) any significant adjustment in the  
19                  greenhouse gas emissions record of the report-  
20                  ing entity; and

21                   “(B) any significant change between the  
22                  greenhouse gas emissions record for the pre-  
23                  ceding year and the greenhouse gas emissions  
24                  reported for the current year.



1       “(d) QUANTIFICATION AND VERIFICATION PROTO-  
2 COLS AND TOOLS.—

3               “(1) IN GENERAL.—The Administrator and the  
4 Secretary of Commerce, the Secretary of Agri-  
5 culture, and the Secretary of Energy shall jointly  
6 work with the States, the private sector, and non-  
7 governmental organizations to develop—

8               “(A) protocols for quantification and  
9 verification of greenhouse gas emissions;

10              “(B) electronic methods for quantification  
11 and reporting of greenhouse gas emissions; and

12              “(C) greenhouse gas accounting and re-  
13 porting standards.

14              “(2) BEST PRACTICES.—The protocols and  
15 methods developed under paragraph (1) shall con-  
16 form, to the maximum extent practicable, to the best  
17 practice protocols that have the greatest support of  
18 experts in the field.

19              “(3) INCORPORATION INTO REGULATIONS.—  
20 The Administrator shall incorporate the protocols  
21 developed under paragraph (1)(A) into the regula-  
22 tions promulgated under section 706.

23              “(4) OUTREACH PROGRAM.—The Adminis-  
24 trator, the Secretary of Commerce, the Secretary of  
25 Agriculture, and the Secretary of Energy shall joint-

1 ly conduct an outreach program to provide informa-  
 2 tion to all reporting entities and the public on the  
 3 protocols and methods developed under this sub-  
 4 section.

5 “(e) VERIFICATION.—

6 “(1) PROVISION OF INFORMATION BY REPORT-  
 7 ING ENTITIES.—Each reporting entity shall provide  
 8 information sufficient for the Administrator to  
 9 verify, in accordance with greenhouse gas accounting  
 10 and reporting standards developed under subsection  
 11 (d)(1)(C), that the greenhouse gas report of the re-  
 12 porting entity—

13 “(A) has been accurately reported; and

14 “(B) in the case of each project reduction,  
 15 represents actual reductions in greenhouse gas  
 16 emissions or actual increases in net sequestra-  
 17 tion, as applicable.

18 “(2) INDEPENDENT THIRD-PARTY  
 19 VERIFICATION.—A reporting entity may—

20 “(A) obtain independent third-party  
 21 verification; and

22 “(B) present the results of the third-party  
 23 verification to the Administrator for consider-  
 24 ation by the Administrator in carrying out  
 25 paragraph (1).

1       “(f) ENFORCEMENT.—The Administrator may bring  
 2 a civil action in United States district court against a cov-  
 3 ered entity that fails to comply with subsection (a), or a  
 4 regulation promulgated under section 706(e), to impose a  
 5 civil penalty of not more than \$25,000 for each day that  
 6 the failure to comply continues.

7       **“SEC. 705. NATIONAL GREENHOUSE GAS EMISSIONS INVEN-**  
 8                               **TORY.**

9       “Not later than April 30, 2002, and each April 30  
 10 thereafter, the Administrator shall publish a national  
 11 greenhouse gas emissions inventory that includes—

12               “(1) comprehensive estimates of the quantity of  
 13 United States greenhouse gas emissions for the sec-  
 14 ond preceding calendar year, including—

15                       “(A) for each greenhouse gas, an estimate  
 16 of the quantity of emissions contributed by each  
 17 key source category;

18                       “(B) a detailed analysis of trends in the  
 19 quantity, composition, and sources of United  
 20 States greenhouse gas emissions; and

21                       “(C) a detailed explanation of the method-  
 22 ology used in developing the national green-  
 23 house gas emissions inventory; and

24               “(2) a detailed analysis of the information re-  
 25 ported to the national greenhouse gas emissions in-

1       formation system and the national greenhouse gas  
2       registry.

3   **“SEC. 706. REGULATIONS.**

4       “(a) IN GENERAL.—The Administrator may promul-  
5       gate such regulations as are necessary to carry out this  
6       title.

7       “(b) BEST PRACTICES.—In developing regulations  
8       under this section, the Administrator shall seek to leverage  
9       leading protocols for the measurement, accounting, report-  
10      ing, and verification of greenhouse gas emissions.

11      “(c) NATIONAL GREENHOUSE GAS EMISSIONS IN-  
12      FORMATION SYSTEM.—Not later than January 31, 2003,  
13      the Administrator shall promulgate such regulations as  
14      are necessary to establish the national greenhouse gas  
15      emissions information system.

16      “(d) NATIONAL GREENHOUSE GAS REGISTRY.—Not  
17      later than January 31, 2004, the Administrator shall pro-  
18      mulgate such regulations as are necessary to establish the  
19      national greenhouse gas registry.

20      “(e) MANDATORY REPORTING REQUIREMENTS.—

21              “(1) INITIAL REPORTING REQUIREMENTS.—Not  
22      later than January 31, 2003, the Administrator  
23      shall promulgate such regulations as are necessary  
24      to implement the initial mandatory reporting re-  
25      quirements under section 704(a)(1).

1           “(2) FINAL REPORTING REQUIREMENTS.—Not  
2       later than January 31, 2004, the Administrator  
3       shall promulgate such regulations as are necessary  
4       to implement the final mandatory reporting require-  
5       ments under section 704(a)(2).

6           “(f) VOLUNTARY REPORTING PROVISIONS.—Not  
7       later than January 31, 2004, the Administrator shall pro-  
8       mulgate such regulations and issue such guidance as are  
9       necessary to implement the voluntary reporting provisions  
10      under section 704(b).

11          “(g) ADJUSTMENT FACTORS.—Not later than Janu-  
12      ary 31, 2004, the Administrator shall promulgate such  
13      regulations as are necessary to implement the adjustment  
14      factors under section 704(c).”.

○